

WHAT IS CLAIMED IS:

1. A disc-shaped optical record carrier comprising:

a first area having a spiral track extending in a first direction from an
inner side on the disc; and

a second area having a spiral track extending in a second direction
opposite to the first direction, from an outer side on the disc located on the same plane
as said first area on the disc,

wherein one of said first and second areas is assigned a recordable area
and the other is assigned a read only area.

2. An optical record carrier according to claim 1, wherein said first area
has sequential address numbers provided from the inner side on the disc, while said
second area has sequential address numbers provided from the outer side on the disc.

3. An optical record carrier according to claim 1, further comprising a
buffer area provided between said first and second areas and formed by crossing said
first and second areas, information being unable to be recorded in and reproduced
from said buffer area.

4. An optical record carrier according to claim 1, further comprising a
buffer area provided between said first and second areas and at least twice as wide as
the larger track pitch of one of said first and second areas, information being unable to
be recorded in and reproduced from said buffer area.

5. An optical record carrier according to claim 1, wherein the read only area stores that has been data written by rotating said optical record carrier clockwise viewed from an optical head in a drive for driving said optical record carrier.

5 6. A disc-shaped optical record carrier comprising:
first and second areas provided respectively in inner and outer portions on the disc, each of said first and second areas being assigned a record area of a different structure and having a track extending in the same direction; and
a buffer area provided between said first and second areas and formed
10 by crossing said first and second areas, information being unable to be recorded in and reproduced from said buffer area.

7. An optical record carrier according to claim 6, wherein one of said first and second areas is assigned a recordable area and the other is assigned a read only
15 area.

8. An optical record carrier according to claim 6, wherein the record area of the different structure is configured as one of a CD-R, a DVD-R, a CD-RW, a DVD-RW, a DVD+RW, a MO, a CD, a CD-ROM, a DVD-ROM, a DVD-RAM, a
20 DVD video, and a DVD-Audio.

9. A disc-shaped optical record carrier comprising:
a first area having a spiral track extending in a first direction from an inner side on the disc; and

a second area having a spiral track extending in a second direction opposite to the first direction, from an outer side on the disc located on the same plane as said first area on the disc,

wherein each of said first and second areas being assigned a record area of a different structure.

10. An optical record carrier according to claim 9, wherein the record area of the different structure is configured as one of a CD-R, a DVD-R, a CD-RW, a DVD-RW, a DVD+RW, a MO, a CD, a CD-ROM, a DVD-ROM, a DVD-RAM, a DVD video, and a DVD-Audio.

11. A drive for driving a disc-shaped optical record carrier that comprises a first area having a spiral track extending in a first direction from an inner side on the disc, and a second area having a spiral track extending in a second direction opposite to the first direction, from an outer side on the disc located on the same plane as said first area on the disc, wherein one of said first and second tracks is assigned a recordable area and the other is assigned a read only area.

12. A drive for driving a disc-shaped optical record carrier that comprises first and second areas provided respectively in inner and outer portions on the disc, each of said first and second areas being assigned a record area of a different structure and having a track extending in the same direction, and a buffer area provided between said first and second areas and formed by crossing said first and second areas, information being unable to be recorded in and reproduced from said buffer area.

13. A drive according to claim 12, comprising:
an optical head for recording data in and/or reproducing data from said
optical record carrier;
a detecting mechanism for detecting a position of said optical head;
a rotating mechanism for rotating said optical record carrier and driving
the same; and
a controller that determines a rotational direction for said optical record
carrier by said rotating mechanism, based on positional information of said optical
head detected by said detecting mechanism, and directional information representative
of a direction in which a spiral track corresponding said optical head located at the
position extends.

14. A drive according to claim 13, wherein said controller obtains the
directional information by a tracking action of said optical head.

15. A drive according to claim 13, wherein said optical head cannot trace
tracks beyond the buffer area in tracking said optical record carrier.

16. A drive for driving a disc-shaped optical record carrier that comprises a
first area having a spiral track extending in a first direction from an inner side on the
disc, and a second area having a spiral track extending in a second direction opposite
to the first direction, from an outer side on the disc located on the same plane as said
first area on the disc, wherein each of said first and second areas being assigned a
record area of a different structure.

17. A drive according to claim 16, wherein said drive comprises:
an optical head for recording data in and/or reproducing data from said optical record carrier;
a detecting mechanism for detecting a position of said optical head;
5 a rotating mechanism for driving said optical record carrier by rotating said optical record carrier; and
a controller that determines a rotational direction for said optical record carrier by said rotating mechanism, based on positional information of said optical head detected by said detecting mechanism, and directional information representative
10 of a direction in which a spiral track corresponding said optical head located at the position extends.

18. A drive according to claim 17, wherein said controller obtains the directional information by a tracking action of said optical head.

19. A data updating method using a disc-shaped optical record carrier that comprises a first area having a spiral track extending in a first direction from an inner side on the disc, and a second area having a spiral track extending in a second direction opposite to the first direction, from an outer side on the disc located on the
20 same plane as said first area on the disc, wherein one of said first and second areas is assigned a recordable area and the other is assigned a read only area, said data updating method comprising the steps of:

storing basic data in one of said first and second areas which has been assigned the read only area; and

25 storing data relating to the basic data in one of said first and second areas which has been assigned the recordable area.

20. A data updating method using a disc-shaped optical record carrier that comprises first and second areas provided respectively in inner and outer portions on the disc, each of said first and second areas being assigned a record area of a different structure and having a track extending in the same direction, and a buffer area
5 provided between said first and second areas and formed by crossing said first and second areas, information being unable to be recorded in and reproduced from said buffer area, said data updating method comprising the steps of:

storing basic data in one of said first and second areas which has been assigned the read only area; and

10 storing data relating to the basic data in one of said first and second areas which has been assigned the recordable area.

21. A software version-up method using a disc-shaped optical record carrier that comprises a first area having a spiral track extending in a first direction from an
15 inner side on the disc, and a second area having a spiral track extending in a second direction opposite to the first direction, from an outer side on the disc located on the same plane as said first area on the disc, wherein one of said first and second areas is assigned a recordable area and the other is assigned a read only area, said software version-up method comprising the steps of:

20 storing software in one of said first and second areas which has been assigned the read only area; and

storing version-up information for the software in one of said first and second areas which has been assigned the recordable area.

22. A software version-up method according to claim 21, further comprising the steps of:

determining whether the software has been stored in a predetermined state in the read only area;

5 writing the version-up information in the recordable area when said determining step determines that the software has been stored in the read only area; and

refusing to write the version-up information when said determining step determines that the software has not been stored in the read only area.

10 23. A software version-up method according to claim 22, wherein said predetermined state is that data relating to the software is stored in a specific region in the read only area.

15 24. A software version-up method using a disc-shaped optical record carrier that comprises first and second areas provided respectively in inner and outer portions on the disc, each of said first and second areas being assigned a record area of a different structure and having a track extending in the same direction, and a buffer area provided between said first and second areas and formed by crossing said first
20 and second areas, information being unable to be recorded in and reproduced from said buffer area, said software version-up method comprising the steps of:

storing software in one of said first and second areas assigned the read only area; and

25 storing version-up information for the software in one of said first and second areas assigned the recordable area.

25. A software version-up method according to claim 24, further comprising the steps of:

determining whether the software has been stored in a predetermined state in the read only area;

5 writing the version-up information in the recordable area when said determining step determines that the software has been stored in the read only area; and

refusing to write the version-up information when said determining step determines that the software has not been stored in the read only area.

10 26. A software version-up method according to claim 25, wherein said predetermined state is that data relating to the software is stored in a specific region in the read only area.

15 27. A software version-up method according to claim 25, wherein said predetermined state is that the software is stored in the read only area while said record carrier is being rotated in a predetermined rotational direction.